

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P388394

Luminaire Tested: **24CZ2-150VHE-SQR-UNV-L930-CD2-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P388394
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-SQR-UNV-L930-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11890.5 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

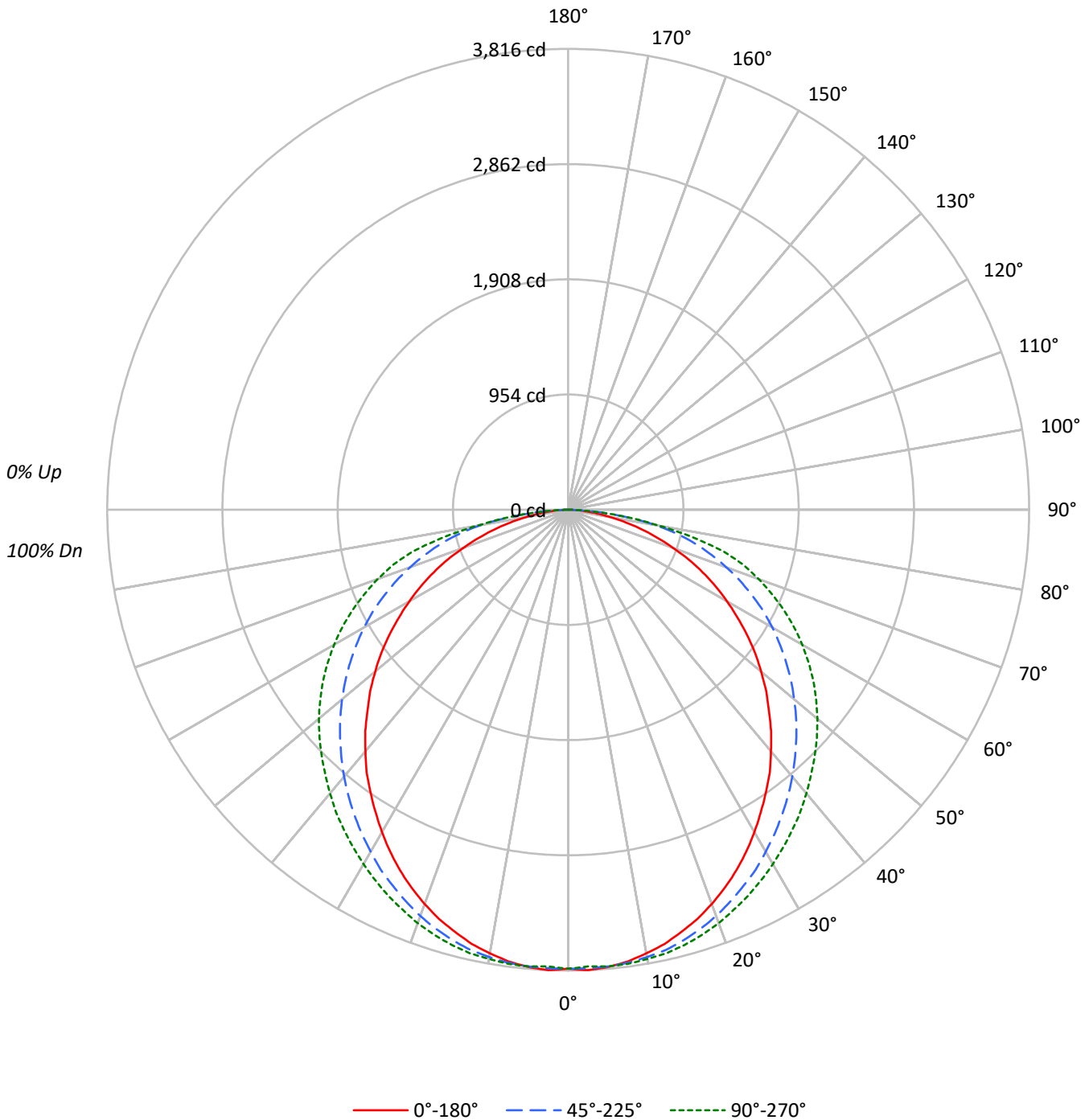
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67					67			
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47					47			
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41					41			
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35					35			
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28					28			
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25					25			
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5114	5114	5114
5°	5133	5128	5128
10°	5096	5139	5161
15°	5043	5141	5196
20°	4976	5127	5217
25°	4891	5100	5234
30°	4789	5081	5265
35°	4689	5069	5314
40°	4586	5069	5386
45°	4468	5081	5491
50°	4364	5112	5638
55°	4237	5167	5812
60°	4089	5251	6023
65°	3913	5350	6275
70°	3630	5484	6596
75°	3287	5674	6899
80°	2768	5689	5933
85°	2121	4304	4304



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.8	3.0
10°-20°	1038.0	8.7
20°-30°	1576.7	13.3
30°-40°	1917.8	16.1
40°-50°	2041.8	17.2
50°-60°	1944.7	16.4
60°-70°	1626.4	13.7
70°-80°	1084.3	9.1
80°-90°	300.0	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2975.4	25.0
0°-40°	4893.2	41.2
0°-60°	8879.8	74.7
0°-90°	11890.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11890.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3801	3801	3801	3801	3801	
5°	3801	3777	3797	3797	3797	361
15°	3620	3628	3691	3718	3730	1021
25°	3294	3338	3436	3494	3526	1517
35°	2854	2937	3086	3188	3235	1786
45°	2348	2474	2670	2819	2886	1815
55°	1806	1963	2203	2395	2478	1615
65°	1229	1410	1680	1889	1971	1214
75°	632	832	1092	1276	1327	670
85°	137	255	279	275	279	166
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3800.8	3800.8	3800.8	3800.8	3800.8
2.5°	3816.5	3789.0	3800.8	3800.8	3785.1
5°	3800.8	3777.2	3796.9	3796.9	3796.9
7.5°	3773.3	3753.7	3785.1	3792.9	3792.9
10°	3730.1	3722.3	3761.5	3773.3	3777.2
12.5°	3683.0	3679.1	3734.0	3749.7	3761.5
15°	3620.2	3628.0	3690.8	3718.3	3730.1
17.5°	3553.4	3569.1	3639.8	3679.1	3690.8
20°	3474.9	3498.4	3580.9	3620.2	3643.7
22.5°	3388.5	3423.8	3510.2	3557.3	3584.8
25°	3294.3	3337.5	3435.6	3494.5	3525.9
27.5°	3192.2	3247.2	3361.0	3427.8	3459.2
30°	3082.2	3145.1	3270.7	3349.2	3388.5
32.5°	2968.4	3043.0	3180.4	3266.8	3313.9
35°	2854.5	2937.0	3086.2	3188.3	3235.4
37.5°	2740.6	2823.1	2988.0	3098.0	3156.8
40°	2611.1	2709.2	2885.9	3007.6	3066.5
42.5°	2485.4	2591.4	2779.9	2913.4	2976.2
45°	2348.0	2473.6	2670.0	2819.2	2885.9
47.5°	2222.4	2348.0	2560.0	2717.1	2791.7
50°	2084.9	2218.4	2442.2	2615.0	2693.5
52.5°	1951.4	2088.9	2324.4	2509.0	2587.5
55°	1806.2	1963.2	2202.7	2395.1	2477.6
57.5°	1660.9	1829.7	2077.1	2277.3	2359.8
60°	1519.5	1692.3	1951.4	2151.7	2238.1
62.5°	1378.2	1550.9	1821.9	2026.0	2108.5
65°	1229.0	1409.6	1680.5	1888.6	1971.1
67.5°	1079.8	1268.2	1539.2	1747.3	1825.8
70°	922.7	1123.0	1393.9	1598.1	1676.6
72.5°	777.4	977.7	1244.7	1444.9	1519.5
75°	632.2	832.4	1091.5	1276.1	1327.1
77.5°	490.8	691.1	922.7	1044.4	1056.2
80°	357.3	545.8	734.2	769.6	765.7
82.5°	239.5	408.3	506.5	510.4	522.2
85°	137.4	255.2	278.8	274.8	278.8
87.5°	55.0	90.3	78.5	58.9	58.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)